C3 cont'd

restriction enzyme sites, or (iii) recognition sequences for sequence-specific recombinases and unique restriction enzyme sites.

C3

48. The recombinant vector of claim 36, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

49. The recombinant vector of claim 45, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

50. The recombinant vector of claim 46, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

C4

57. A method of producing a recombinant vector of claim 36, which method comprises:

(a) introducing into a host cell containing infectious viral genomic sequences all or a portion of a BAC, wherein said all or a portion of the BAC enables replication in the host cell of a recombinant vector of which it is comprised, and

(b) recombining all or a portion of the BAC, as has been introduced into the host cell, with the infectious viral genomic sequences,

whereupon the recombinant vector is obtained.

C5

67. A method of mutagenizing an infectious viral genomic sequence in a recombinant vector of claim 36, which method comprises:

(a) introducing the recombinant vector of claim 36 into a bacterial host cell, which contains mutagenizing DNA molecules, and

(b) mutagenizing the infectious viral genomic sequence in the recombinant vector.

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68. The method of claim 67, wherein step (b) is carried out by homologous recombination between the recombinant vector and the mutagenizing DNA molecules.

69. The method of claim 68, wherein there is a mutant allele in the mutagenizing DNA molecules and the homologous recombination is carried out between the recombinant vector and the mutant allele.

70. The method of claim 67, wherein there is a transposon in the mutagenizing DNA molecules and step (b) is carried out by the transposon.